

(2)

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 1 of 46



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OPP OFFICIAL RECORD  
HEALTH EFFECTS DIVISION  
SCIENTIFIC DATA REVIEWS  
EPA SERIES 361

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

## MEMORANDUM

DATE: March 22, 2004

SUBJECT: **Myclobutanil** Human Exposure and Risk Assessments for the Section 18  
Emergency Exemptions on Soybean in Minnesota (04MN06) and South Dakota  
(04SD03) for Control of Soybean Rust

PC Code: 128857  
DP Barcode: D296308

REVIEWER: J. R. Tomerlin *JR Tomerlin 3/22/04*  
Fungicides Branch  
Registration Division (7505C)

THROUGH: P.V. Shah *PV Shah*  
Registration Action Branch 1  
Health Effects Division (7509C)

TO: Andrew Ertman, Section 18 Team  
Minor Use and Inerts Branch  
Registration Division (7505C)

## **Executive Summary**

Section 18 requests for the use of myclobutanil to control soybean rust have prompted a reassessment of the potential risk from its use.

## Dietary Exposure and Risk

Acute and chronic dietary exposure and risk analyses were conducted to determine the exposure and risk estimates resulting from the use of myclobutanil to control soybean rust. The assessment is prompted by a Section 18 Emergency Exemption request submitted by the States of Minnesota and North Dakota. The acute analysis is based on Tier I assumptions of tolerance-level residues and 100% crop treated. The chronic analysis is partially refined in that it incorporates estimates of average percent crop treated (%CT) for some crops, as well as Pesticide Data Program (PDP) monitoring data from apple juice, bananas (not plantains) and milk. The Dietary Exposure Evaluation Model (DEEM-FCID™, Version 1.36) which uses food

MAR - 4 2004

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DE Barcode: D296308  
Page: 2 of 46

consumption data from the USDA's Continuing Surveys of Food Intakes by Individuals (CSFII) from 1994-1996 and 1998 was used to estimate acute and chronic dietary risks. Based on highly conservative assumptions, acute dietary risk is not expected to exceed 2% of the acute Population Adjusted Dose (aPAD) for women aged 13 to 49 years old, the population group of interest. Using %CT estimates for some crops and PDP monitoring data, chronic dietary risk is not expected to exceed 25% of the chronic Population Adjusted Dose (cPAD) for any population subgroup. Neither acute nor chronic dietary risk estimates exceed the Agency's level of concern.

#### Risk from Residues in Water

The Agency used the Screening Concentration in Ground Water (SCI-GROW) to calculate myclobutanil EECs in ground water and the First Index Reservoir Screening Tool (FIRST) to calculate EECs in surface water. The assessments assumed use patterns for hops: 15 applications per year, 0.65 lb ai/A per application, and a 14-day interval. The proposed use pattern for myclobutanil under the Section 18 is no more than 2 applications of 0.13 lb ai/A and a PHI of 28 days. Therefore, the assumptions under which the water EEC values were calculated lead to an overestimate of the potential residue concentration in water from the use of myclobutanil on soybeans.

Based on the FIRST model the estimated environmental concentrations (EECs) of myclobutanil in surface water are 333 ppb and 86 ppb for acute and chronic exposures, respectively. The EEC for both acute and chronic exposures is estimated as 3.2 ppb for ground water using the SCI-GROW model.

#### Residential Exposure and Risk

Potential for exposure and risk exists from the homeowner use of myclobutanil. For homeowner handlers, the lowest Margin of Exposure (MOE) is 770 for dermal exposures while applying myclobutanil to turf with a garden-hose applicator. The lowest combined MOE for homeowners who apply myclobutanil to both turf and ornamentals is 600 for dermal exposures. Therefore, since the Agency's level of concern for myclobutanil is for MOEs less than 100, potential risk to homeowner handlers is well below the level of concern.

For residential post-application exposures, the lowest short-term MOE is 560 for dermal exposures for toddlers on turf. The lowest MOE for combined exposure is 520 for toddlers' hand-to-mouth and dermal intermediate-term exposures to residues on turf. Therefore, since the Agency's level of concern for myclobutanil is for MOEs less than 100, potential risk to handlers is well below the level of concern.

#### Occupational Exposure and Risk

Based on the proposed use patterns in soybeans, occupational handlers are expected to have dermal and inhalation exposures. The lowest estimated dermal and inhalation MOEs are 2040 and 333, respectively, for mixer/loaders. Note that the dermal MOE of 2040 is achieved only by

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 3 of 46

wearing a single layer of protective clothing and gloves. Without gloves, MOEs are lower than 100. Therefore, since The Agency's level of concern for myclobutanil is for MOEs less than 100, potential risk to handlers is well below the level of concern. Therefore, the use directions for this Section must require that mixer/loaders wear gloves when handling myclobutanil.

Because of the high interest in soybean rust and the need to scout fields to confirm its presence, the Agency conducted an assessment of post-application exposures for scouting activities. Post-application MOEs are 2083. Since the Agency's level of concern for myclobutanil is for MOEs less than 100, potential risk for occupational post-application exposures is well below the Agency's level of concern.

#### Cancer Dietary Exposure Results and Characterization

The third HIARC to discuss myclobutanil toxicity confirmed that cancer risk is most appropriately assessed using the reference dose approach rather than the  $Q_1^*$  methodology. Exposure to myclobutanil for the total U.S. Population, at 2% of the cPAD, is below the Agency's level of concern.

#### Aggregate Exposure and Risk

The acute dietary risk estimates (food only) are based upon 100% CT and tolerance level residues. The Agency has estimated that the acute dietary exposure to myclobutanil from food for females 13-49 years old will utilize 2% of the aPAD. For acute dietary risk, the Agency's level of concern is for exposures >100% aPAD. The Environmental Fate and Effects Division (EFED) supplied surface and ground water EECs which do not exceed calculated Drinking Water Level Of Comparison (DWLOCs). Therefore, the Agency does not expect the acute aggregate exposure estimates to exceed the Agency's level of concern. No acute endpoint was chosen for the general U.S. population (including infants and children). Therefore, an acute risk assessment for those subpopulations was not performed.

The chronic dietary risk estimates (food only) are based upon tolerance level residues for most commodities, and average %CT data for some food commodities. However, for apple juice, bananas (not plantains) and milk, monitoring data from the USDA's PDP were used. The most highly exposed population subgroup for chronic dietary exposure (children 1-2 years old) accounts for 24% of the cPAD. For chronic dietary risk, The Agency's level of concern is for exposures >100% cPAD. EFED supplied surface and ground water modeling estimates which do not exceed the Agency's calculated DWLOCs for any subpopulation. The registered residential uses do not constitute a chronic scenario. Therefore, the Agency does not expect the chronic aggregate exposure estimates to exceed the Agency's level of concern.

HED Hazard Identification Assessment Review Committee (HIARC) determined that oral and dermal exposures can not be aggregated due to differences in the toxicological endpoints via the oral (developmental) and dermal (no systemic toxicity) routes (Memo, M. Copley, 9/2/99).

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 4 of 46

---

Therefore, a short-term aggregate exposure risk assessment was not performed.

Intermediate-term aggregate risk estimates do not exceed the Agency's level of concern. The Agency aggregated the chronic dietary exposure (food only) and residential exposure (dermal from garden uses) for the general U.S. Population and those population subgroups for which residential exposure is expected. The total MOEs for the general U.S. population and infants/children are 3000 and 740, respectively (the Agency's acceptable level for myclobutanil is for MOEs  $\geq 100$ ). EFED supplied surface and ground water modeling estimates which do not exceed the Agency's calculated DWLOCs for the general U.S. population or infants/children. Therefore, the Agency does not expect the intermediate-term aggregate exposure estimates to exceed the Agency's level of concern.

## I. Introduction

The States of Minnesota and South Dakota have petitioned the Agency requesting an Emergency Exemption for myclobutanil to control soybean rust under Section 18 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). In conjunction with that petition, the petitioners have requested the establishment of temporary tolerances for residues of myclobutanil on soybean and processed soybean commodities.

Although *Phakopsora pachyrhizi*, the soybean rust pathogen, has not yet been identified in the continental United States, it has been detected in South America. As a designated biosecurity threat, it is important that control measures be available if soybean rust is identified in the United States. Under the proposed use, soybeans could be treated upon the official confirmed identification of soybean rust in the United States.

In January of 2001, time-limited tolerances were established for residues of myclobutanil in or on sugarbeet roots, tops and by-products. The risk assessment underlying these temporary tolerances was published in Federal Register 66(2):298-306(1/3/01) and forms the basis of the current risk assessment for residues of myclobutanil on soybeans.

## II. Residue Information

Proposed application parameters in the Section 18 request call for up to 2 applications of myclobutanil at an application rate of 2.0 oz (0.125 lb) a.i./A, equivalent to approximately 56 g a.i./A. The Section 18 requested a PHI of 28 days, which is longer than the PHI used in soybean field trials. In 1999, residue field trials were conducted on soybean in South America. Note that the authorization of this Section 18 should prohibit the feeding of soybean forage and hay to livestock. In two studies<sup>1</sup>, soybeans were treated at two application rates of myclobutanil

---

<sup>1</sup>Study 1: "Myclobutanil Residue in Soybean After Treatment with Systhane C E Fungicide, Brazil - 2001-02", Pinheiro, A.C. Study ID: GHB-P803, June 17, 2002  
Study 2: "Determination of Myclobutanil (Systhane RH 3866) Residue in Soybean, without

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 5 of 46

emulsifiable concentrate; 125 or 250 g a.i./ha, equivalent to approximately 50 and 100 g a.i./A. One application was made 24 days before harvest. For purposes of this risk assessment, it was assumed that the application parameters employed in the soybean trials are equivalent to those requested in the Section 18. Residues were < 0.02 ppm for both application rates in Study #RH09-10/99 and < 0.01 ppm for the 125 g treatment in Study #GHB-P8031 and 0.03 ppm for the 250 g treatment. The residues observed in soybean field trials did not exceed the level of the inadvertent residues tolerances of 0.03 ppm currently listed in 40 CFR 180.443. Therefore, a residue level of 0.03 ppm was assumed for soybeans. The residues pertinent to the myclobutanil dietary risk assessments are shown in Table 1.

<b>Table 1. Tolerances for Myclobutanil from 40 CFR 180.443</b>		
<b>Crop Commodity</b>	<b>Tolerance in ppm</b>	<b>Expiration/Revocation Date</b>
Almond nutmeat	0.1	
Apple	0.5	
Asparagus	0.02	
Banana, postharvest	4.0	
Bean, snap, succulent	1.0	
Caneberry subgroup 13A	2.0	
Cattle, fat	0.05	
Cattle, liver	1.0	
Cattle, meat	0.1	
Cattle, meat byproducts, except liver	0.2	
Cherry, sweet	5.0	
Cherry, tart	5.0	
Cotton seed	0.02	
Currant	3.0	
Egg	0.02	
Fruit, stone (except cherry)	2.0	
Goat, fat	0.05	
Goat, liver	1.0	
Goat, meat	0.1	
Goat, meat byproducts, except liver	0.2	

Degradation Curve", Rodrigues, N.R. Study ID RH09-10/99, December 15, 1999.

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DI# Barcode: 102963038  
Page: 6 of 46

Crop Commodity	Tolerance in ppm	Expiration/Revo- cation Date
Gooseberry	2.0	
Grape	1.0	
Hog, fat	0.05	
Hog, liver	1.0	
Hog, meat	0.1	
Hog, meat byproducts, except liver	0.2	
Horse, fat	0.05	
Horse, liver	1.0	
Horse, meat	0.1	
Horse, meat byproducts, except liver	0.2	
Mayhaw	0.7	
Milk	0.2	
Peppermint, tops	3.0	
Plum, prune, dried	8.0	
Poultry, fat	0.02	
Poultry, meat	0.02	
Poultry, meat byproducts	0.02	
Raisins	10.0	
Sheep, fat	0.05	
Sheep, liver	1.0	
Sheep, meat	0.1	
Sheep, meat byproducts, except liver	0.2	
Spearmint, tops	3.0	
Strawberry	0.5	
Tomato	0.3	
Tomato, puree	0.5	
Tomato, paste	1.0	
Vegetable, cucurbit, group 9	0.2	
<i>Time limited tolerances under Section 18 emergency exemptions</i>		
Artichoke, globe	1.0	6/30/05

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 7 of 46

Crop Commodity	Tolerance in ppm	Expiration/Revo- cation Date
Beet, sugar, refined sugar	0.7	12/31/04
Hop, dried cone	5.0	12/31/05
Pepper	1.0	6/30/05
<i>Indirect or inadvertent residues</i>		
Grain, cereal, group 15	0.03	
Vegetable, brassica, leafy, group 5	0.03	
Vegetable, fruiting, group 8	0.03	
Vegetable, leafy, except brassica, group 4	0.03	
Vegetable, Legume, group 6	0.03	
Vegetable, root and tuber, group 1	0.03	
Note: Tolerances in animal feed commodities have been excluded from this summary. Tolerances in meat, milk, poultry and eggs were calculated incorporating the tolerances on those feedstuffs.		

### Myclobutanil Use Data

The %CT estimates were taken from the most recent risk assessment, Federal Register 66(2):298-306(1/3/01). The values were checked against the web-based database maintained by USDA's National Agricultural Statistics Service( <http://www.pestmanagement.info/nass/>). The higher %CT estimate was used for any crop showing significant differences from the value reported in the January 2001 Federal Register notice.

EPA's Biological and Economic Analysis Division (BEAD) provided information about myclobutanil use patterns in the 1996 to 1997 time span<sup>2</sup> for commodities used as animal feed items. These data indicated that livestock dietary burdens have not substantially changed between 2004 and *ca.* 1996, so that the PDP monitoring residue data for milk may be used in this Section 18 assessment. It should be noted that USDA's PDP is collecting milk samples for myclobutanil analyses, and those data should be used to update this assessment when available.

### **III. DEEM Program and Consumption Information**

The Dietary Exposure Evaluation Model (DEEM-FCID®) analysis evaluated the individual food consumption as reported by respondents in the USDA 1994-1996 and 1998 nationwide CSFII and accumulated exposure to the chemical for each commodity. The acute analysis was performed for females 13-49 years old using published tolerance level residues (40 CFR

<sup>2</sup>E-mail from Jihad Alsadek, BEAD, March 4, 2004 and attached document "myclobutanil.wpd" containing myclobutanil use estimates for animal feed commodities.

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 8 of 46

180.443) and 100% CT for all commodities. Therefore, the acute risk was evaluated at the 95th percentile. The aPAD for females 13–49 years old is 0.6 mg/kg/day. For acute dietary risk, EPA's level of concern is >100% aPAD. No acute dietary exposure analysis was performed for the general U.S. population, including infants and children, because no endpoint was chosen for these population subgroups.

For conducting this chronic dietary risk assessment the DEEM® analysis evaluated the mean food consumption as reported by respondents in the USDA 1994–1996 and 1998 nationwide CSFII and accumulated exposure to the chemical for each commodity. The chronic analysis was performed using published tolerance levels for all commodities, except apple juice, bananas and milk, for which monitoring data from the USDA's Pesticide Data Program were used. For the chronic analysis, %CT information was used for apples, apricots, cherries, grapes, nectarines, peaches, plums, and cotton and 100% CT was assumed for all other commodities.

The Agency used %CT information in a refined chronic dietary risk assessment as follows: apples at 40%, apricots at 15%, cherries at 40%, grapes at 45%, nectarines at 20%, peaches at 10%, plums at 15% and cotton at 1%. These values were confirmed against the USDA's National Agricultural Statistics web database. 100% crop treated was assumed for all other commodities.

#### **IV. Toxicological Information**

The aPAD was 0.6 mg/kg bw/day for women 13 to 49 years old. The ePAD was 0.025 mg/kg bw/day for all population groups.

HED's Hazard Identification Review Committee (HIARC) met on August 12, 1999 to determine endpoint selection for myclobutanil. At this meeting, the HIARC also reassessed FQPA requirements as required by the Food Quality Protection Act (FQPA) of 1996. The HIARC also re-assessed the doses and endpoints appropriate for acute dietary, chronic dietary, occupational and residential risk assessments. The toxicity endpoints pertinent for human risk assessment are summarized in Table 2.



Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 9 of 46

**Table 2. Summary of Toxicological Doses and Endpoints for Myclobutanil  
for Use in Human Health Risk Assessment**

<b>Exposure Scenario</b>	<b>Dose Used in Risk Assessment, UF</b>	<b>Hazard and Exposure Based Special FQPA Safety Factor</b>	<b>Study and Toxicological Effects</b>
Acute Dietary (Females 13-50)	NOEL = <b>60</b> mg/kg/day UF = <b>100</b> <b>Acute RfD = 0.6</b> mg/kg/day	FQPA SF = <b>1X</b> <b>aPAD = acute RfD</b> <b>= 0.6</b> mg/kg/day	Developmental Toxicity Study - Rats. LOAEL = <b>200</b> mg/kg/day based on increased resorptions, decreased litter size and a decrease in the viability index
Acute Dietary (General Population)	None	N/A	N/A
Chronic Dietary (All populations)	NOAEL = <b>2.49</b> mg/kg/day UF = <b>100</b> <b>Chronic RfD = 0.025</b> mg/kg/day	FQPA SF = <b>1X</b> <b>cPAD = chronic RfD</b> <b>= 0.025</b> mg/kg/day	Chronic Toxicity/Oncogenicity Study - Rats LOAEL = <b>10</b> mg/kg/day based on decreased testicular weights and increased testicular atrophy
Short Term (1-30 days) Dermal	NOAEL = 100 mg ai/kg/day	Residential MOE = 100 Occupational MOE = 100	28-day Dermal Toxicity - Rats. There were no signs of toxicity at the high dose of 100 mg/kg a.i.
Intermediate Term (1-6 months) Dermal	Oral NOAEL = 10 mg ai/kg/day	Residential MOE = 100 Occupational MOE = 100	2 Generation Reproduction Toxicity - Rat. LOAEL = 50 mg/kg bw/day based on atrophy of the testes and prostate as well as an increase in the number of stillborn pups and a decrease in pup weight gain during lactation.

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 10 of 46

**Table 2. Summary of Toxicological Doses and Endpoints for Myclobutanil  
for Use in Human Health Risk Assessment**

<b>Exposure Scenario</b>	<b>Dose Used in Risk Assessment, UF</b>	<b>Hazard and Exposure Based Special FQPA Safety Factor</b>	<b>Study and Toxicological Effects</b>
Long Term Dermal (> 6 months)	Oral NOAEL = 2.49 mg/kg/day	Residential MOE = 100 Occupational MOE = 100	Chronic Toxicity/Carcinogenicity - Rat LOAEL = 10 mg/kg/day based on decreased testicular weights and increased testicular atrophy.
Short Term (1-30 Days) Inhalation	Oral NOAEL = 10 mg/kg/day	Residential MOE = 100 Occupational MOE = 100	2 Generation Reproduction Toxicity Study - Rats. LOAEL = 50 mg/kg bw/day based on atrophy of the testes and prostate as well as an increase in the number of stillborn pups and a decrease in pup weight gain during lactation.
Intermediate Term (1-6 months) Inhalation	Oral NOAEL = 10 mg/kg/day	Residential MOE = 100 Occupational MOE = 100	2 Generation Reproduction Toxicity Study - Rats. LOAEL = 50 mg/kg bw/day based on atrophy of the testes and prostate as well as an increase in the number of stillborn pups and a decrease in pup weight gain during lactation.
Long Term Inhalation (> 6 months)	Oral NOAEL = 2.49 mg/kg/day	Residential MOE = 100 Occupational MOE = 100	Chronic Toxicity/Carcinogenicity - Rat LOAEL = 10 mg/kg/day based on decreased testicular weights and increased testicular atrophy.
Cancer	Group E- likely not a human carcinogen		

## V. Results/Discussion

For acute and chronic assessments, the Agency is concerned when dietary risk exceeds 100% of the aPAD. The DEEMR analyses estimate the dietary exposure of the U.S. population

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 11 of 46

and 26 population subgroups.

*Acute Dietary Exposure Analysis.* Results (Table 3) are reported at the 95th percentile of exposure because the assessment incorporated 100% CT assumptions and tolerance-level residues. The estimated acute dietary exposure, at 2% of the aPAD, does not exceed 100% of the aPAD for Females 13-49 years, the population subgroup of interest.

*Chronic Dietary Exposure Analysis.* The results of the refined chronic dietary exposure analysis are summarized in Table 3. Children 1-2 years old are the most highly exposed population group, at 0.006616 mg/kg/day, equivalent to 25% of the cPAD. All other population groups have estimated exposures less than this amount. Therefore, estimated exposures for all population groups is < 100% of the cPAD.

<b>Table 3. Summary of Dietary Exposure and Risk for Myclobutanil</b>						
Population Subgroup	Acute Dietary (95 <sup>th</sup> Percentile)		Chronic Dietary		Cancer	
	Dietary Exposure (mg/kg/day)	% aPAD	Dietary Exposure (mg/kg/day)	% cPAD	Dietary Exposure (mg/kg/day)	Risk
General U.S. Population	N/A		0.002047	8	N/A	
All Infants (< 1 year old)			0.003172	13		
Children 1-2 years old			0.006166	25		
Children 3-5 years old			0.004921	20		
Children 6-12 years old			0.002973	12		
Youth 13-19 years old			0.001633	7		
Adults 20-49 years old			0.001548	6		
Adults 50+ years old			0.001608	6		
Females 13-49 years old	0.012261	2	0.001522	6		

### Residential Exposure and Risk

Myclobutanil is present in numerous end-use products, including those registered for use on turf, roses, flowers, shrubs and trees. Soluble concentrate may be applied with hose-end or trigger bottle sprayers. Small scale lawn application has the greatest potential for homeowner exposures. Short and intermediate-term exposures are expected for residential handlers. The HIARC has determined that a 50% dermal absorption factor should be applied for intermediate-term assessments. A dermal absorption factor is not required for short-term assessments because the

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 12 of 46

NOAEL used is based upon a 28-day dermal study.

The most recent residential risk assessment was conducted for the Section 18 on sugar beets<sup>3</sup> and residential usage has not changed since that time. Therefore, the exposure values summarized in that assessment are valid for the current assessment for the proposed Section 18 on soybean. The residential MOEs are summarized in Tables 4 to 6. Note that this memo calculates exposures, and rounds to two significant figures; e.g., an MOE of 2687 would be entered in the summary table as 2700.

Table 4. Baseline Short-Term MOEs for Homeowner Use of Myclobutanil						
Mix/Load/App ly Exposure Scenario	Total Daily Dose (mg/kg/day)		Short-Term MOE		Combined Short-Term MOE Turf + Orn. treatment	
	Dermal	Inhalation	Dermal	Inhalation	Dermal	Inhalation
Garden hose application to turfgrass	0.13	0.000044	770	230000	600	23000
Trigger spray- er application to ornamentals	0.036	0.0000011	2800	9100000		
Dermal NOAEL: 100 mg/kg/day Inhalation NOAEL: 10 mg/kg/day						

<b>Table 5. Residential Post-Application MOEs for Myclobutanil</b>						
Scenario	Daily Dose (mg/kg/day)		Short- Term MOE	Interm.- Term MOE	Combined MOE	
	Short	Interm			Short	Interm
Adult dermal - turf	0.073	0.011 <sup>3</sup>	1400	910	1100	N/A
Adult dermal - ornamentals	0.017	N/A	5900	N/A		
Toddler - hand- to-mouth	N/A	0.0013	N/A	7700	N/A	520

<sup>3</sup>ID#: 00ID0034. Section 18 Emergency Exemption for the Use of Myclobutanil on Sugar Beets in Idaho. Memo from J. E. Rowell to R. Forrest, November 9, 2000, D268379

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 13 of 46

<b>Table 5. Residential Post-Application MOEs for Myclobutanil</b>						
Scenario	Daily Dose (mg/kg/day)		Short-Term MOE	Interm.-Term MOE	Combined MOE	
	Short	Interm			Short	Interm
Toddler dermal - turf	0.12	0.018 <sup>1</sup>	830	560		
Youth dermal - ornamentals	0.0074	N/A	14000	N/A	N/A	N/A
Short-Term NOAEL: 100 mg/kg/day Intermediate-Term NOAEL: 10 mg/kg/day <sup>1</sup> Incorporates a 50% dermal absorption factor						

<b>Table 6. Combined Residential Handler and Post-Application Dermal Exposures</b>		
Scenario	Short-Term MOE	Combined Short-Term MOE
Handler applying to turf and ornamentals	600	390
Adult post-application exposure to turf and ornamentals	1100	

Since MOEs less than 100 are of concern, there are no residential risk concerns for myclobutanil.

#### Water Exposure and Risk

There are no health advisory levels or Maximum Contaminant Levels established for residues of myclobutanil in drinking water. The Agency used the Screening Concentration in Ground Water (SCI-GROW) to calculate myclobutanil EECs in ground water and the First Index Reservoir Screening Tool (FIRST) to calculate EECs in surface water. Model assumptions followed the use patterns for hops: 15 applications per year, 0.65 lb a.i./application, and 14 day PHI<sup>4</sup>. These assumptions are much higher than the proposed patterns in the Section 18. Based on the FIRST model, the estimated environmental concentrations (EECs) of myclobutanil for acute exposures are 333 ppb and 86 ppb for chronic exposures. The EEC for both acute and chronic exposures is estimated as 3.2 ppb for surface water using the SCI-GROW model.

A drinking water level of comparison (DWLOC) is a theoretical upper limit on a pesticide's concentration in drinking water in light of total aggregate exposure to a pesticide in food,

---

<sup>4</sup>"Myclobutanil (Rally 40W) on Peppers IN California Rohm and Hass Company/Dow AgroSciences." Memo from T. Nguyen to R. Forrest, June 9, 2003, DP Barcode D289700 and D290167.

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 14 of 46

drinking water, and through residential uses. A DWLOC will vary depending on the toxic endpoint, drinking water consumption, body weights, and pesticide uses. Different populations will have different DWLOCs. The Agency uses DWLOCs in the risk assessment process to assess potential concern for exposure associated with pesticides in drinking water. DWLOC values are not regulatory standards for drinking water.

## VI. Worker Exposure and Risk

Although the existing risk assessment and inadvertent residues tolerances on soybeans is being used to support the Section 18 request of the use of myclobutanil on soybean, it was necessary to conduct an assessment of worker risk using the soybean use patterns. For myclobutanil, toxicity endpoints were taken from "Memo, M. Copley, HED DOC No. 013740, "MYCLOBUTANIL: - Second Report of the Hazard Identification Assessment Review Committee.", 2 September 1999." The dermal toxicological endpoint (NOAEL 100 mg a.i./kg bw/day) was taken from a 28-day dermal toxicity study in the rat. Therefore, there was no correction for dermal absorption. The inhalation toxicological endpoint (NOAEL 10 mg a.i./kg bw/day) was taken from a 2-generation reproduction toxicity study in the rat where the effects seen were atrophy of the testes and prostate as well as an increase in the number of stillborn pups and a decrease in pup weight gain during lactation. The ADD for dermal exposure for myclobutanil is calculated as

$$\text{ADD} = \text{Unit Exposure} * \text{Application Rate} * \text{Units Treated} / 70 \text{ kg bw}$$

Since the inhalation endpoint was taken from a developmental study showing fetal effects, 60 kg is used to calculate inhalation exposure. A summary of the worker risk calculations is provided in Table 7.

<b>Table 7: Summary of Exposures and Risks to Occupational Pesticide Handlers for Myclobutanil to Control Soybean Rust.</b>					
<b>Unit Exposure<sup>1</sup></b> mg/lb ai handled	<b>Application Rate<sup>2</sup></b> lb ai/Acre	<b>Units Treated<sup>3</sup></b> Acres/Day	<b>Average Daily Dose<sup>4</sup></b> mg a.i./kg bw/day	<b>NOAEL<sup>5</sup></b> mg a.i./kg bw/day	<b>MOE<sup>6</sup></b>
<b>Mixer/Loader - Liquid - Open Loading</b>					
Dermal: SLNG 2.9 HC SLWG 0.023 HC Inhal 0.0012HC	2.0 oz ai/A <b>0.125 lb ai/A</b>	1200	Dermal SLNG 6.21 SLWG 0.049 Inhalation 0.003	Dermal 100 from 28 day dermal Inhalation 10	Dermal SLNG 20 SLWG 2000 Inhalation 3300
<b>Applicator - Ground-boom - Open Cab</b>					

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 15 of 46

**Table 7: Summary of Exposures and Risks to Occupational Pesticide Handlers  
for Myclobutanil to Control Soybean Rust.**

Dermal: SLNG 0.014 HC SLWG 0.014 MC Inhal 0.00074HC	2.0 oz ai/A <b>0.125 lb ai/A</b>	200	Dermal SLNG 0.01 SLWG 0.01 Inhalation 0.00062	Dermal 100 from 28 day dermal Inhalation 10	Dermal SLNG 10,000 SLWG 10,000 Inhalation 16,000
Applicator - Aerial - Fixed Wing					
Dermal: SLNG 0.0050 MC SLWG 0.0022 LC Inhal 0.000068 MC	2.0 oz ai/A <b>0.125 lb ai/A</b>	1200	Dermal SLNG 0.01  Inhalation 0.00017	Dermal 100 from 28 day dermal Inhalation 10	Dermal SLNG 10,000  Inhalation 59,000
<p>1. Unit Exposure = mg a.i./lb a.i. handled from PHED SURROGATE EXPOSURE GUIDE - Estimates of Worker Exposure from the Pesticide Handler Exposure Database Version 1.1, August 1998. Dermal: SLNG = a Single Layer of work clothing (i.e., long pants, long-sleeved shirt, shoes plus socks) and <b>No</b> protective gloves. SLWG = a single layer of work clothing <b>and the use of</b> protective gloves (i.e., <b>with</b> gloves). Inhal = Inhalation exposure.</p> <p>2. Application Rate taken from Section 18 Request, Corresp. J. Sierk Minnesota Dept. Agricult. to D. Rosenblatt, 30 January 2004.</p> <p>3. Units Treated taken from Science Advisory Council for Exposure, Standard Operating Procedure 9.1, Standard Values for Daily Acres Treated in Agriculture, Rev. 25 SEP 2001.</p> <p>4. Average Daily Dose (ADD) is derived by:  Unit Exposure * Application Rate * Units Treated * Absorption Factor (when applicable) ÷ Body Weight.</p> <p>NOTE a) Dermal absorption is <b>not</b> corrected if the toxicological endpoints were identified from a dermal toxicity study. Otherwise, the dermal absorption factor is utilized as identified by the HED HIARC. Inhalation absorption is assumed to be 100 %.</p> <p>NOTE b) Body weight is assumed to be 70 kg <b>unless</b> the toxicological endpoints (NOAEL) are identified from a developmental study which showed fetal effects. Then, 60 kg bw is used.</p> <p>5. No Observed Adverse Effect Level (NOAEL) (mg a.i./kg bw/day) are taken from the HED Hazard Identification Assessment Review Committee (HIARC) report.</p> <p>6. Margin Of Exposure (MOE) = NOAEL (mg a.i./kg bw/day) ÷ ADD (mg a.i./kg bw/day).</p>					

There is a potential for agricultural workers to have post-application exposure to pesticides during the course of typical agricultural activities. Health Effects Division in conjunction with the Agricultural Re-entry Task Force (ARTF) has identified a number of post-application agricultural activities that may occur. HED has also identified Transfer Coefficients (TC) (expressed as cm<sup>2</sup>/hr) relative to the various activities.

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 16 of 46

The transfer coefficients used in this assessment are from an interim transfer coefficient SOP developed by HED's Science Advisory Council for Exposure using proprietary data from the Agricultural Re-Entry Task Force (ARTF) database (SOP # 3.1). It is the intention of HED's Science Advisory Council for Exposure that this SOP will be periodically updated to incorporate additional information about agricultural practices in crops and new data on transfer coefficients. Much of this information will originate from exposure studies currently being conducted by the ARTF, from further analysis of studies already submitted to the Agency, and from studies in the published scientific literature.

For the proposed use, the activity with the highest TC is scouting the crop in full foliage stages of crop development with a TC of 1,500 cm<sup>2</sup>/hr.

Lacking compound specific data, the Agency assumes 20 % of the application rate is available as foliar dislodgeable residue on day zero after application. This is adapted from the Science Advisory Council For Exposure SOP No. 003 (7 May 1998 - Revised 7 August 2000). The following convention may be used to estimate post-application exposure.

Surrogate Dislodgeable Foliar Residue

DFR =

$$\text{application rate} * 20\% \text{ available as dislodgeable residue} * (1-D)^t * 4.54 \times 10^6 \mu\text{g/lb} * 2.47 \times 10^{-6} \text{ A/cm}^2$$

and the Average Daily Dose (ADD) =

$$\text{DFR } \mu\text{g/cm}^2 * \text{TC cm}^2/\text{hr} * \text{hr/day} * 0.001 \text{ mg}/\mu\text{g} * 1/70 \text{ kg bw}$$

For myclobutanil, the calculations are:

$$\begin{aligned} \text{DFR} &= 0.125 \text{ lb a.i./A} * .20 * (1-0)^0 * 4.54 \times 10^6 \mu\text{g/lb} * 2.47 \times 10^{-6} \text{ A/cm}^2 \\ &= 0.28 \mu\text{g/cm}^2 \end{aligned}$$

$$\begin{aligned} \text{ADD} &= 0.28 \mu\text{g/cm}^2 * 1,500 \text{ cm}^2/\text{hr} * 8 \text{ hr/day} * 0.001 \text{ mg}/\mu\text{g} * 1/70 \text{ kg bw} \\ &= 0.048 \text{ mg/kg bw/day} \end{aligned}$$

$$\begin{aligned} \text{Since } \text{MOE} &= \text{NOAEL} \div \text{ADD then } 100 \text{ mg/kg bw/day} \div 0.048 \text{ mg/kg bw/day} \\ &= \mathbf{2083.} \end{aligned}$$

## VII. Aggregate Exposure and Risk

DWLOCs were calculated for acute and chronic exposure to myclobutanil in surface and ground water. To calculate the DWLOC for acute exposure relative to an acute toxicity endpoint, the acute dietary food exposure (from DEEM™) was subtracted from the aPAD to obtain the acceptable acute exposure to myclobutanil in drinking water. Residential exposure was not an issue for short term risk. Aggregate acute risk is summarized in Table 8.



Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 17 of 46

**Table 8. Aggregate Risk Summary - Acute Exposures**

Population Group	aPAD (mg/kg/day)	Food Exposure (mg/kg/day) 95 <sup>th</sup> Percentile	Maximum Water Exposure (mg/kg/day)	DWLOC (ppb)	EEC (ppb)	
					Surface Water	Ground Water
Females 13-49	0.6	0.012261	0.587739	18000	333	3.2

Aggregate intermediate-term risk was calculated by subtracting chronic dietary and residential exposures from the intermediate-term PAD. As shown in Table 9, the water exposure for calculating the DWLOC was estimated by dividing the intermediate-term NOEL by the aggregate MOE. The aggregate MOE was calculated as

$$1/[(1/\text{MOE}_{\text{food}}) + (1/\text{MOE}_{\text{residential oral}}) + (1/\text{MOE}_{\text{residential dermal}})]$$

**Table 9. Intermediate-Term Aggregate Risk Estimates for Myclobutanil**

Population Subgroup and [Intermediate-Term Aggregate MOE] ⇒		Children 1-2 <sup>1</sup> [100]	Gen Popn <sup>2</sup> [100]
Food Exposure	Chronic Food Exposure (mg/kg/day) [NOAEL]	0.006166 [10]	0.002047 [10]
	Chronic Food MOE	1600	4900
Residential Oral (incidental hand to mouth)	ADD Oral Exposure (mg/kg/day) [NOAEL]	0.0013 [10]	N/A
	Oral MOE	7700	
Residential Dermal (50% dermal absorption)	ADD Dermal Exposure (mg/kg/day) [NOAEL]	0.018 [10]	0.011 [10]
	Dermal MOE	560	910
	Food + Residential Aggregate MOE	390	770
Drinking Water	Allowable Water Exposure (mg/kg/day)	0.074359 <sup>3</sup>	0.087013 <sup>3</sup>

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DD Barcode: 12296305  
Page: 18 of 46

Table 9. Intermediate-Term Aggregate Risk Estimates for Myclobutanil			
Population Subgroup and [Intermediate-Term Aggregate MOE] $\Rightarrow$		Children 1-2 <sup>1</sup> [100]	Gen Popn <sup>2</sup> [100]
	Intermediate DWLOC (ppb)	740	2600
	Surface Water EEC (ppb)	3.2 <sup>3</sup>	
	Ground Water EEC (ppb)	86 <sup>4</sup>	

<sup>1</sup>Children 1-2 years are being used as representatives of all children because they had the highest dietary exposure per kg.

<sup>2</sup>The US General Population exposure was estimated using the residential exposures for adults. In calculating the DWLOC, a body weight of 60 kg was assumed to minimize the value of the DWLOC, a protective measure

<sup>3</sup>The water exposure was calculated as the PAD - (Chronic food exposure + residential exposure). Because of the difference endpoints and routes, (Chronic food exposure + Residential exposure) was calculated as NOEL/[Food + Residential Aggregate MOE]. Thus, for children, the (Chronic food exposure + Residential exposure) is 10 mg/kg/day/390, or 0.025641 mg/kg/day. Water exposure is then calculated as 0.1 mg/kg/day - 0.025651 mg/kg/day, or 0.074359 mg/kg/day.

<sup>4</sup>For assessing intermediate-term aggregate risk, the DWLOC is compared to the chronic EEC

To calculate the DWLOC for chronic exposure relative to a chronic toxicity endpoint, the chronic dietary food exposure (from DEEM<sup>TM</sup>) was subtracted from the cPAD to obtain the acceptable chronic exposure to myclobutanil in drinking water. DWLOCs were then calculated using the default body weights and drinking water consumption figures listed; the aggregate chronic risks are summarized in Table 10.

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 19 of 46

**Table 10. Summary of Chronic Aggregate Risk for Myclobutanil**

Population Subgroup	cPAD (mg/kg/day)	Dietary Exposure (mg/kg/day)	bw (kg) <sup>1</sup>	Water (L) <sup>2</sup>	DWLOC <sup>3</sup>	EEC GW <sup>4</sup>	EEC SW <sup>5</sup>
General U.S. Population	0.025	0.002047	70	2	800	3.2	86
All Infants (< 1 year old)		0.003172	10	1	220		
Children 1-2 years old		0.006166	10	1	190		
Children 3-5 years old		0.004921	10	1	200		
Children 6-12 years old		0.002973	10	1	220		
Youth 13-19 years old		0.001633	60	2	700		
Adults 20-49 years old		0.001548	70	2	820		
Adults 50+ years old		0.001608	70	2	820		
Females 13-49 years old		0.001522	60	2	700		

<sup>1</sup>Default body weight in kg

<sup>2</sup>Default water consumption in liters

<sup>3</sup>Drinking Water Level of Comparison, calculated as

$$\text{DWLOC}(\mu\text{g/L}) = \frac{[\text{maximum water exposure (mg/kg/day)} \times \text{body weight (kg)}]}{[\text{water consumption (L)} \times 10^{-3} \text{ mg}/\mu\text{g}]}$$

<sup>4</sup> Estimated Environmental Concentration for ground water, in ppb

<sup>5</sup> Estimated Environmental Concentration for surface water, in ppb

## VIII. Discussion of Uncertainties

The acute analysis conducted for this assessment incorporates highly conservative assumptions regarding residue levels - tolerance levels for all commodities. This represents a

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: 12/06/308  
Page: 20 of 46

screening-level approach and the Agency recognizes that the resulting dietary exposure and risk estimates are likely to be overestimates. While there are uncertainties associated with this type of analysis, their magnitude are likely to be insignificant relative to the degree of overestimation.

The chronic dietary assessment likewise uses tolerance-level residues, as well as %CUF estimates for some crops. For apple juice, bananas, and milk, the assessment uses tolerance level residues. The result is a more refined assessment from that conducted for acute dietary exposure. Although this approach uses less-conservative assumptions and increases the level of uncertainty in the analysis, it is still unlikely to underestimate dietary exposure and risk.

## **IX. Endocrine Disrupter Effects**

EPA is required under the Federal Food Drug and Cosmetic Act (FFDCA), as amended by FQPA, to develop a screening program to determine whether certain substances (including all pesticide active and other ingredients) "may have an effect in humans that is similar to an effect produced by a naturally occurring estrogen, or other such endocrine effects as the Administrator may designate." Following the recommendations of its Endocrine Disrupter Screening and Testing Advisory Committee (EDSTAC), EPA determined that there was scientific bases for including, as part of the program, the androgen and thyroid hormone systems, in addition to the estrogen hormone system. EPA also adopted EDSTAC's recommendation that the Program include evaluations of potential effects in wildlife. For pesticide chemicals, EPA will use FIFRA and, to the extent that effects in wildlife may help determine whether a substance may have an effect in humans, FFDCA authority to require the wildlife evaluations. As the science develops and resources allow, screening of additional hormone systems may be added to the Endocrine Disrupter Screening Program (EDSP).

When the appropriate screening and/or testing protocols being considered under the Agency's EDSP have been developed, myclobutanil may be subjected to additional screening and/or testing to better characterize effects related to endocrine disruption.

## **X. Cumulative Exposure to Substance with a Common Mechanism of Toxicity**

The Food Quality Protection Act (1996) stipulates that when determining the safety of a pesticide chemical, EPA shall base its assessment of the risk posed by the chemical on, among other things, available information concerning the cumulative effects to human health that may result from dietary, residential, or other non-occupational exposure to other substances that have a common mechanism of toxicity. The reason for consideration of other substances is due to the possibility that low-level exposures to multiple chemical substances that cause a common toxic effect by a common mechanism could lead to the same adverse health effect as would a higher level of exposure to any of the other substances individually. A person exposed to a pesticide at a level that is considered safe may in fact experience harm if that person is also exposed to other substances that cause a common toxic effect by a mechanism common with that of the subject pesticide, even if the individual exposure levels to the other substances are also considered safe.

The Agency did not perform a cumulative risk assessment as part of this tolerance action for

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 21 of 46

---

myclobutanil because HED has not yet initiated a review to determine if there are any other chemical substances that have a mechanism of toxicity common with that of myclobutanil. For purposes of this Section 18 request, EPA has assumed that myclobutanil does not have a common mechanism of toxicity with other substances.

On this basis, the petitioner must submit, upon EPA's request and according to a schedule determined by the Agency, such information as the Agency directs to be submitted in order to evaluate issues related to whether myclobutanil shares a common mechanism of toxicity with any other substance and, if so, whether any tolerances for myclobutanil need to be modified or revoked. If HED identifies other substances that share a common mechanism of toxicity with myclobutanil, The Agency will perform aggregate exposure assessments on each chemical, and will begin to conduct a cumulative risk assessment once the final guidance The Agency will use for conducting cumulative risk assessments is available.

HED has recently developed a framework that it proposes to use for conducting cumulative risk assessments on substances that have a common mechanism of toxicity. This guidance was issued for public comment on June 30, 2000 (65 FR 40644-40650) and is available from the OPP Website at: <http://www.epa.gov/fedrgstr/EPA-PEST/2000/June/Day-30/6049.pdf>. In the draft guidance, it is stated that a cumulative risk assessment of substances that cause a common toxic effect by a common mechanism will not be conducted until an aggregate exposure assessment of each substance has been completed. The proposed guidance on cumulative risk assessment of pesticide chemicals that have a common mechanism of toxicity is expected to be finalized by the summer of 2001.

Before undertaking a cumulative risk assessment, HED will follow procedures for identifying chemicals that have a common mechanism of toxicity as set forth in the "*Guidance for Identifying Pesticide Chemicals and Other Substances that Have a Common Mechanism of Toxicity*" (64 FR 5795-5796, February 5, 1999).

## **XI. Conclusions**

Based on Tier 1 acute and Tier 3 chronic/cancer assumptions, the Agency has no risk concerns for dietary exposure to myclobutanil resulting from the use of the fungicide insecticide on the crops for which tolerances already exist. Soybeans are included in the registered crops. Although the soybean tolerances are for inadvertent residues, the magnitude of residues observed in residue field trials on soybeans do not exceed this level. The Agency also has no concerns regarding residential or aggregate exposures, including the potential for residues in drinking water.

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: 10296308  
Page: 22 of 46

---

## **XII. References**

Unpublished, Dow Study #RH09-10/99, "Determination of Myclobutanil (Systhane RH 3866) Residue in Soybean, with Degradation Curve."

Unpublished, Dow Study #GHB-P 803, "Myclobutanil Residue in Soybean After Treatment with Systhane\* CE - Fungicide, Brazil - 2001-02."

## **XI. List of Attachments**

Attachment 1. Input Residues and Processing Factors for Myclobutanil Acute Dietary Assessment (Note: Percent Crop Treated was used for the chronic assessment but not for the acute assessment)

Attachment 2. Summary of Acute Tier 1 Dietary Exposure and Risk Estimates for Myclobutanil

Attachment 3 - *Input Residues and Processing Factors for Myclobutanil Chronic Dietary Assessment*

Attachment 4. Summary of Chronic Refined Dietary Exposure and Risk Estimates for Myclobutanil.

cc: Mary Waller, Fungicides Branch, Registration Division (7505C)  
Michael Doherty, Registration Action Branch 2, Health Effects Division (7509C)  
J. R. Tomerlin, Fungicides Branch, Registration Division (7505C)

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 23 of 46

# Attachment 1. Input Residues and Processing Factors for Myclobutanil.

U.S. Environmental Protection Agency Ver. 1.33  
DEEM-FCID Acute analysis for MYCLOBUTANIL  
Residue file name: C:\Documents and Settings\btomerli\My  
Documents\Atzoles\risk\dietary\myclo\myclo-tol.R98  
Analysis Date 02-25-2004 Residue file dated: 02-25-2004/10:41:05/8  
Reference dose (aRfD) = 0.6 mg/kg bw/day  
Comment: Tolerance file to evaluate Section 18

EPA Code	Crop Grp	Food Name	Def Res (ppm)	Adj. Factors #1	Adj. Factors #2	Comment
14000030	14	Almond	0.100000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
14000031	14	Almond-babyfood	0.100000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
14000040	14	Almond, oil	0.100000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
14000041	14	Almond, oil-babyfood	0.100000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
04010050	4A	Amaranth, leafy	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
11000070	11	Apple, fruit with peel	0.500000	1.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
11000080	11	Apple, peeled fruit	0.500000	1.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
11000081	11	Apple, peeled fruit-babyfood	0.500000	1.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
11000090	11	Apple, dried	0.500000	8.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
11000091	11	Apple, dried-babyfood	0.500000	8.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
11000100	11	Apple, juice	0.500000	1.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
11000101	11	Apple, juice-babyfood	0.500000	1.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
11000110	11	Apple, sauce	0.500000	1.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
11000111	11	Apple, sauce-babyfood	0.500000	1.000	0.40040	CFR
		Full comment: 40 CFR 180.443(a)				
12000120	12	Apricot	2.000000	1.000	0.15040	CFR
		Full comment: 40 CFR 180.443(a)				
12000121	12	Apricot-babyfood	2.000000	1.000	0.15040	CFR
		Full comment: 40 CFR 180.443(a)				
12000130	12	Apricot, dried	2.000000	6.000	0.15040	CFR
		Full comment: 40 CFR 180.443(a)				
12000140	12	Apricot, juice	2.000000	1.000	0.15040	CFR
		Full comment: 40 CFR 180.443(a)				
12000141	12	Apricot, juice-babyfood	2.000000	1.000	0.15040	CFR
		Full comment: 40 CFR 180.443(a)				
01030150	1CD	Arrowroot, flour	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01030151	1CD	Arrowroot, flour-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
95000160	0	Artichoke, globe	1.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(b)				
01030170	1CD	Artichoke, Jerusalem	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
04010180	4A	Arugula	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
95000190	0	Asparagus	0.020000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
09020210	9B	Balsam pear	0.200000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
95000230	0	Banana	4.000000	1.000	1.00040	CFR

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 24 of 46

95000231	0	Banana-babyfood Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	4.903000	1.000	1.000	0%
95000240	0	Banana, dried Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	1.000000	1.000	1.000	0%
95000241	0	Banana, dried-babyfood Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	4.003000	1.000	1.000	0%
15000250	15	Barley, pearled barley Full comment: 40 CFR 180.443(d) Full comment: 40 CFR 180.443(d)	0.000000	1.000	1.000	0%
15000251	15	Barley, pearled barley-babyfood Full comment: 40 CFR 180.443(d) Full comment: 40 CFR 180.443(d)	0.000000	1.000	1.000	0%
15000260	15	Barley, flake Full comment: 40 CFR 180.443(d) Full comment: 40 CFR 180.443(d)	0.000000	1.000	1.000	0%
15000261	15	Barley, flake-babyfood Full comment: 40 CFR 180.443(d) Full comment: 40 CFR 180.443(d)	0.000000	1.000	1.000	0%
15000270	15	Barley, flake Full comment: 40 CFR 180.443(d) Full comment: 40 CFR 180.443(d)	0.000000	1.000	1.000	0%
06000300	60	Bean, black, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000310	60	Bean, broad, succulent Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000320	60	Bean, broad, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000330	60	Bean, cowpea, succulent Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000340	60	Bean, cowpea, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000350	60	Bean, great northern, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000360	60	Bean, kidney, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000370	60	Bean, lima, succulent Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000380	60	Bean, lima, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000390	60	Bean, mung, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000400	60	Bean, navy, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000410	60	Bean, pink, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000420	60	Bean, pinto, seed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.000000	1.000	1.000	0%
06000430	60	Bean, snap, succulent Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	1.000000	1.000	1.000	0%
06000431	60	Bean, snap, seed-babyfood Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	1.000000	1.000	1.000	0%
21000440	M	Beef, meat Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000441	M	Beef, meat-babyfood Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000450	M	Beef, meat, dried Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000460	M	Beef, meat-hydrolyzed Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000461	M	Beef, meat-hydrolyzed-babyfood Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000470	M	Beef, fat Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000471	M	Beef, fat-babyfood Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000480	M	Beef, kidney Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000490	M	Beef, liver Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%
21000491	M	Beef, liver-babyfood Full comment: 40 CFR 180.443(a) Full comment: 40 CFR 180.443(a)	0.100000	1.000	1.000	0%



Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 25 of 46

---

	Full comment: 40 CFR 180.443(a)			
01010500	1AB Beet, garden, roots	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
01010501	1AB Beet, garden, roots-babyfood	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
02000510	2 Beet, garden, tops	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
01010520	1A Beet, sugar	0.700000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(b)			
01010521	1A Beet, sugar-babyfood	0.700000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(b)			
01010530	1A Beet, sugar, molasses	1.000000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(b)			
01010531	1A Beet, sugar, molasses-babyfood	1.000000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(b)			
13010550	13A Blackberry	2.000000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(a)			
13010560	13A Blackberry, juice	2.000000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(a)			
13010561	13A Blackberry, juice-babyfood	2.000000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(a)			
13010580	13A Boysenberry	2.000000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(a)			
05010610	5A Broccoli	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05010611	5A Broccoli-babyfood	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05010620	5A Broccoli, Chinese	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05020630	5B Broccoli raab	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05010640	5A Brussels sprouts	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
15000650	15 Buckwheat	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
15000660	15 Buckwheat, flour	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
01010670	1AB Burdock	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05010690	5A Cabbage	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05020700	5B Cabbage, Chinese, bok choy	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05010710	5A Cabbage, Chinese, napa	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05010720	5A Cabbage, Chinese, mustard	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
09010750	9A Cantaloupe	0.200000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(a)			
04020760	4B Cardoon	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
01010780	1AB Carrot	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
01010781	1AB Carrot-babyfood	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
01010790	1AB Carrot, juice	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
09010800	9A Casaba	0.200000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(a)			
01030820	1CD Cassava	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
01030821	1CD Cassava-babyfood	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
05010830	5A Cauliflower	0.030000	1.000	1.00040 CFR
	Full comment: 40 CFR 180.443(d)			
01010840	1AB Celery	0.030000	1.000	1.00040 CFR

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 26 of 46

04020850	4B Celery	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
04020851	4B Celery-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
04020860	4B Celery, juice	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
04020870	4B Celuce	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
09020880	4B Chayote, fruit	0.200000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
12000900	12 Cherry	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
12000901	12 Cherry-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
12000910	12 Cherry, juice	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
12000911	12 Cherry, juice-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000930	7 Chicken, meat	0.020000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000931	8 Chicken, meat-babyfood	0.020000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000940	2 Chicken, liver	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000950	4 Chicken, meat byproduct	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000951	4 Chicken, meat byproduct-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000960	8 Chicken, fat	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000961	8 Chicken, fat-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000970	4 Chicken, skin	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
40000971	4 Chicken, skin-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
06030980	6C Chickpea, seed	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
06030981	6C Chickpea, seed-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
06030990	6C Chickpea, flour	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
01011000	1AB Chicory, roots	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
02001010	2 Chicory, tops	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
09021020	9B Chinese waxgourd	0.200000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
04011040	4A Chrysanthemum, seed and	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
05011070	5B Celarsia	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
15001200	15 Corn, field, flour	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
15012010	15 Corn, field, flour-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
15001210	15 Corn, field, meal	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
15012111	15 Corn, field, meal-babyfood	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
15012120	15 Corn, field, meal	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
15012130	15 Corn, field, meal	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				
15012131	15 Corn, field, meal byproduct	0.000000	1.000	0.000	0.00
	Full comment: 40 CFR 180.441(a)				

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 27 of 46

15001240	15	Corn, field, syrup	0.030000	1.500	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15001241	15	Corn, field, syrup-babyfood	0.030000	1.500	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15001250	15	Corn, field, oil	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15001251	15	Corn, field, oil-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15001260	15	Corn, pop	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15001270	15	Corn, sweet	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15001271	15	Corn, sweet-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
95001280	0	Cottonseed, oil	0.020000	1.000	0.01040	CFR
		Full comment: 40 CFR 180.443(a)				
95001281	0	Cottonseed, oil-babyfood	0.020000	1.000	0.01040	CFR
		Full comment: 40 CFR 180.443(a)				
04011330	4A	Cress, garden	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
04011340	4A	Cress, upland	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
09021350	9B	Cucumber	0.200000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
13021360	13B	Currant	3.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
13021370	13B	Currant, dried	3.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
04011380	4A	Dandelion, leaves	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01031390	1CD	Dasheen, corm	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
02001400	2	Dasheen, leaves	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
13011420	13A	Dewberry	2.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
70001450	P	Egg, whole	0.020000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
70001451	P	Egg, whole-babyfood	0.020000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
70001460	P	Egg, white	0.020000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
70001461	P	Egg, white (solids)-babyfood	0.020000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
70001470	P	Egg, yolk	0.020000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
70001471	P	Egg, yolk-babyfood	0.020000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
08001480	8	Eggplant	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
04011500	4A	Endive	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
04021520	4B	Fennel, Florence	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01031660	1CD	Ginger	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01031661	1CD	Ginger-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01031670	1CD	Ginger, dried	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01011680	1AB	Ginseng, dried	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
23001690	M	Goat, meat	0.100000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
23001700	M	Goat, meat byproducts	0.200000	1.000	1.00040	CFR

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 28 of 46

23001710	M	Goat, fat	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
23001720	M	Goat, kidney	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
23001730	M	Goat, liver	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
13021740	13B	Gooseberry	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
95001750	O	Grape	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
95001760	O	Grape, juice	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
95001761	O	Grape, juice-babyfood	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
95001770	O	Grape, leaves	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
95001780	O	Grape, raisin	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
95001790	O	Grape, wine and sherry	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
06031820	6C	Guar, seed	Full comment: 40 CFR 180.441(b)	0.030000	0.000	0.000000	0.00
06031821	6C	Guar, seed-babyfood	Full comment: 40 CFR 180.441(b)	0.000000	0.000	0.000000	0.00
09011870	9A	Honeydew melon	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
95001880	O	Hop	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
24001890	M	Horse, meat	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
01011900	1AB	Horseradish	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
05011940	5C	Flax	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
05011960	5A	Flaxseed	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
06032030	6C	Lentil, seed	Full comment: 40 CFR 180.441(b)	0.000000	1.000	0.000000	0.00
04012040	4A	Lettuce, head	Full comment: 40 CFR 180.441(a)	0.030000	1.000	0.000000	0.00
04012050	4A	Lettuce, leaf	Full comment: 40 CFR 180.441(a)	0.030000	1.000	0.000000	0.00
13012080	13A	Loganberry	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
27002220	D	Milk, fat	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
27002221	D	Milk, fat - baby food/infant food	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
27012230	D	Milk, mother's milk	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
27012231	D	Milk, mother's milk-baby food/infant food	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
27022240	D	Milk, water	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
27022241	D	Milk, water-baby food/infant food	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
27032251	D	Milk, sugar (dried) (powder)	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
15002160	15	Milk, yogurt	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
05012290	5E	Mustard, seed	Full comment: 40 CFR 180.441(a)	0.030000	1.000	0.000000	0.00
12002350	12	Nectarine	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00
15002310	15	Onion, raw	Full comment: 40 CFR 180.441(a)	0.000000	1.000	0.000000	0.00

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 29 of 46

15002320	15	Oat, flour	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15002321	15	Oat, flour-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15002330	15	Oat, groats/rolled oats	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
15002331	15	Oat, groats/rolled oats-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
08002340	8	Okra	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
04012480	4A	Parsley, leaves	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01012500	1AB	Parsley, turnip rooted	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01012510	1AB	Parsnip	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
01012511	1AB	Parsnip-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
06022550	6B	Pea, succulent	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
06022551	6B	Pea, succulent-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
06032560	6C	Pea, dry	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
06032561	6C	Pea, dry-babyfood	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
06012570	6A	Pea, edible podded, succulent	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
06032580	6C	Pea, pigeon, seed	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
06022590	6B	Pea, pigeon, succulent	0.030000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(d)				
12002600	12	Peach	2.000000	1.000	0.32040	CFR
		Full comment: 40 CFR 180.443(a)				
12002601	12	Peach-babyfood	2.000000	1.000	0.32040	CFR
		Full comment: 40 CFR 180.443(a)				
12002610	12	Peach, dried	2.000000	7.000	0.32040	CFR
		Full comment: 40 CFR 180.443(a)				
12002611	12	Peach, dried-babyfood	2.000000	7.000	0.32040	CFR
		Full comment: 40 CFR 180.443(a)				
12002620	12	Peach, juice	2.000000	1.000	0.32040	CFR
		Full comment: 40 CFR 180.443(a)				
12002621	12	Peach, juice-babyfood	2.000000	1.000	0.32040	CFR
		Full comment: 40 CFR 180.443(a)				
08002700	8	Pepper, bell	1.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(b)				
08002701	8	Pepper, bell-babyfood	1.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(b)				
08002710	8	Pepper, bell, dried	1.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(b)				
08002711	8	Pepper, bell, dried-babyfood	1.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(b)				
08002720	8	Pepper, nonbell	1.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(b)				
08002721	8	Pepper, nonbell-babyfood	1.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(b)				
08002730	8	Pepper, nonbell, dried	1.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(b)				
95002750	0	Peppermint	3.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
95002830	0	Plantain	4.000000	1.000	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
95002840	0	Plantain, dried	4.000000	3.900	1.00040	CFR
		Full comment: 40 CFR 180.443(a)				
12002850	12	Plum	2.000000	1.000	0.15040	CFR

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 30 of 46

12002851	12 Plum-babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
12002860	12 Plum, prune, fresh	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
12002861	12 Plum, prune, fresh babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
12002870	12 Plum, prune, dried	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
12002871	12 Plum, prune, dried-babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
12002880	12 Plum, prune, juice	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
12002881	12 Plum, prune, juice-babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002900	M Pork, meat	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002901	M Pork, meat-babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002910	M Pork, skin	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002920	M Pork, meat byproducts	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002921	M Pork, meat byproducts-babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002930	M Pork, fat	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002931	M Pork, fat-babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002940	M Pork, kidney	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
25002950	M Pork, liver	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01032960	10 Potato, imp	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01032970	10 Potato, dry (grain) or/ flaked	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01032971	10 Potato, dry (granules) flaked	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01032980	10 Potato, flour	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01032981	10 Potato, flour-babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01032990	10 Potato, tuber, w/peel	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01032991	10 Potato, tuber, w/peel babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01033000	10 Potato, tuber, w/peel	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
01033001	10 Potato, tuber, w/peel-babyfood	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
60003010	P Poultry, other, meat	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
60003020	P Poultry, other, liver	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
60003030	P Poultry, other, meat byproducts	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
60003040	P Poultry, other, fat	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
60003050	P Poultry, other, skin	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
60003080	P Poultry, other	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
60003090	P Poultry, meat	0.000000	0.000	0.000000	0.000
	Full comment: 40 CFR 180.443(a)				
99013150	AA Undefined	0.000000	0.000	0.000000	0.000

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 31 of 46

01013140	1AB Radish, roots	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
02003150	2 Radish, tops	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
01013160	1AR Radish, Oriental, roots	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
02003170	2 Radish, Oriental, tops	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
05023180	5B Rape greens	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
13013200	13A Raspberry	2.000000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
13013201	13A Raspberry-babyfood	2.000000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
13013210	13A Raspberry, juice	2.000000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
13013211	13A Raspberry, juice-babyfood	2.000000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
04023220	4B Rhubarb	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003230	15 Rice, white	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003231	15 Rice, white-babyfood	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003240	15 Rice, brown	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003241	15 Rice, brown-babyfood	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003250	15 Rice, flour	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003251	15 Rice, flour-babyfood	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003260	15 Rice, bran	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003261	15 Rice, bran-babyfood	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
01013270	1AB Rutabaga	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003280	15 Rye, grain	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003290	15 Rye, flour	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
01013310	1AB Salsify, roots	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
02003320	2 Salsify, tops	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
26003390	M Sheep, meat	0.100000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
26003391	M Sheep, meat-babyfood	0.100000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
26003400	M Sheep, meat byproducts	0.200000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
26003410	M Sheep, fat	0.050000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
26003411	M Sheep, fat-babyfood	0.050000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
26003420	M Sheep, kidney	0.200000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
26003430	M Sheep, liver	1.000000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(a)				
15003440	15 Sorghum, grain	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
15003450	15 Sorghum, syrup	0.030000	1.000	1.00040	CFR
	Full comment: 40 CFR 180.443(d)				
06003470	6 Soybean, seed	0.030000	1.000	1.00040	CFR

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 32 of 46

06003480	6	Soybean, flour	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
06003481	6	Soybean, flour-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
06003490	6	Soybean, soy milk	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
06003491	6	Soybean, soy milk-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
06003500	6	Soybean, oil	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
06003501	6	Soybean, oil-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
95003520	0	Spearmin	Full comment: 40 CFR 180.443(c)	0.000000	1.000	0.000000	0.000000
95003530	0	Spearmin, oil	Full comment: 40 CFR 180.443(c)	0.000000	1.000	0.000000	0.000000
04013550	4A	Spinach	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
04013551	4A	Spinach-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
09023560	9B	Squash, summer	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
09023561	9B	Squash, summer-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
09023570	9B	Squash, winter	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
09023571	9B	Squash, winter-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
95003590	6	Strawberry	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
95003591	6	Strawberry-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
95003600	6	Strawberry, sliced	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
95003601	6	Strawberry, sliced-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
01033660	1CB	Sweet potato	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
01033661	1CB	Sweet potato-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
04013670	4B	Swiss chard	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
01033710	1CB	Tanier, green	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003740	8	Tomatillo	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003750	8	Tomato	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003751	8	Tomato-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003760	8	Tomato, paste	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003761	8	Tomato, paste-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003770	8	Tomato, sauce	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003771	8	Tomato, sauce-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003780	8	Tomato, dried	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003781	8	Tomato, dried-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003790	8	Tomato, sliced	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000
08003791	8	Tomato, sliced-babyfood	Full comment: 40 CFR 180.443(d)	0.000000	1.000	0.000000	0.000000



Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 33 of 46

---

15003811	15	Full comment: 40 CFR 180.443(d) Triticale, flour-babyfood	0.030000	1.000	1.00040	CFR
50003820	P	Full comment: 40 CFR 180.443(d) Turkey, meat	0.020000	1.000	1.00040	CFR
50003821	P	Full comment: 40 CFR 180.443(a) Turkey, meat-babyfood	0.020000	1.000	1.00040	CFR
50003830	P	Full comment: 40 CFR 180.443(a) Turkey, liver	0.020000	1.000	1.00040	CFR
50003831	P	Full comment: 40 CFR 180.443(a) Turkey, liver-babyfood	0.020000	1.000	1.00040	CFR
50003840	P	Full comment: 40 CFR 180.443(a) Turkey, meat byproducts	0.020000	1.000	1.00040	CFR
50003841	P	Full comment: 40 CFR 180.443(a) Turkey, meat byproducts-babyfood	0.020000	1.000	1.00040	CFR
50003850	P	Full comment: 40 CFR 180.443(a) Turkey, fat	0.020000	1.000	1.00040	CFR
50003851	P	Full comment: 40 CFR 180.443(a) Turkey, fat-babyfood	0.020000	1.000	1.00040	CFR
50003860	P	Full comment: 40 CFR 180.443(a) Turkey, skin	0.020000	1.000	1.00040	CFR
50003861	P	Full comment: 40 CFR 180.443(a) Turkey, skin-babyfood	0.020000	1.000	1.00040	CFR
01033870	1CD	Full comment: 40 CFR 180.443(d) Turmeric	0.030000	1.000	1.00040	CFR
01013880	1AB	Full comment: 40 CFR 180.443(d) Turnip, roots	0.030000	1.000	1.00040	CFR
05023890	5B	Full comment: 40 CFR 180.443(d) Turnip, greens	0.030000	1.000	1.00040	CFR
09013990	9A	Full comment: 40 CFR 180.443(a) Watermelon	0.200000	1.000	1.00040	CFR
09014000	9A	Full comment: 40 CFR 180.443(a) Watermelon, juice	0.200000	1.000	1.00040	CFR
15004010	15	Full comment: 40 CFR 180.443(d) Wheat, grain	0.030000	1.000	1.00040	CFR
15004011	15	Full comment: 40 CFR 180.443(d) Wheat, grain-babyfood	0.030000	1.000	1.00040	CFR
15004020	15	Full comment: 40 CFR 180.443(d) Wheat, flour	0.030000	1.000	1.00040	CFR
15004021	15	Full comment: 40 CFR 180.443(d) Wheat, flour-babyfood	0.030000	1.000	1.00040	CFR
15004030	15	Full comment: 40 CFR 180.443(d) Wheat, germ	0.030000	1.000	1.00040	CFR
15004040	15	Full comment: 40 CFR 180.443(d) Wheat, bran	0.030000	1.000	1.00040	CFR
15004050	15	Full comment: 40 CFR 180.443(d) Wild rice	0.030000	1.000	1.00040	CFR
01034060	1CD	Full comment: 40 CFR 180.443(d) Yam, true	0.030000	1.000	1.00040	CFR
01034070	1CD	Full comment: 40 CFR 180.443(d) Yam bean	0.030000	1.000	1.00040	CFR

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 35 of 46

U.S. Environmental Protection Agency Ver. 1.33  
DEEM-PCID ACUTE Analysis for MYCLOBUTANIL (1994-98 data)  
Residue file: myclo-tol.R98 Adjustment factor #2 NOT used.  
Analysis Date: 02-25-2004/12:46:59 Residue file dated: 02-25-2004/10:41:05/8  
Acute Reference Dose (aRfD) = 0.600000 mg/kg body-wt/day  
Daily totals for food and foodform consumption used.  
Run Comment: "Tolerance file to evaluate Section 18"

	Daily Exposure Analysis /a	
	(mg/kg body-weight/day)	
	per Capita	per User
Mean	0.003687	0.003692
Standard Deviation	0.004223	0.004224
Standard Error of mean	0.000055	0.000055
Percent of aRfD	0.61	0.62

Percent of Person-Days that are User-Days = 99.86%

Estimated percentile of user-days falling below calculated exposure  
in mg/kg body-wt/day with Percent of aRfD

Percentile	Exposure	% aRfD	Percentile	Exposure	% aRfD
10.00	0.000553	0.09	90.00	0.009098	1.52
20.00	0.000909	0.15	95.00	0.012261	2.04
30.00	0.001252	0.21	97.50	0.015544	2.59
40.00	0.001671	0.28	99.00	0.018961	3.16
50.00	0.002167	0.36	99.50	0.023077	3.85
60.00	0.002817	0.47	99.75	0.027219	4.54
70.00	0.003807	0.63	99.90	0.035964	5.99
80.00	0.005719	0.95			

Estimated percentile of per-capita days falling below calculated exposure  
in mg/kg body-wt/day with Percent of aRfD

Percentile	Exposure	% aRfD	Percentile	Exposure	% aRfD
10.00	0.000549	0.09	90.00	0.009089	1.51
20.00	0.000905	0.15	95.00	0.012255	2.04
30.00	0.001248	0.21	97.50	0.015535	2.59
40.00	0.001668	0.28	99.00	0.018954	3.16
50.00	0.002163	0.36	99.50	0.023069	3.84
60.00	0.002812	0.47	99.75	0.027214	4.54
70.00	0.003803	0.63	99.90	0.035963	5.99
80.00	0.005712	0.95			

a/ Analysis based on all two-day participant records in CSFII 1994-98 survey.

Food Group	Food Code	Food Name	Portion (g)	Calories	Protein (g)	Fat (g)	Carb (g)	Fiber (g)
Almond	14000030 14	Almond	4.1000000	1,060	1.07	1.07	1.07	1.07
Almond-babyfood	14000031 14	Almond-babyfood	4.1000000	1,060	1.07	1.07	1.07	1.07
Almond, oil	14000040 14	Almond, oil	4.1000000	1,060	1.07	1.07	1.07	1.07
Almond, oil-babyfood	14000041 14	Almond, oil-babyfood	4.1000000	1,060	1.07	1.07	1.07	1.07
Amaranth, leafy	04010050 4A	Amaranth, leafy	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, fruit with core	11000070 11	Apple, fruit with core	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, peeled fruit	11000080 11	Apple, peeled fruit	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, peeled (w/leucosyria)	11000081 11	Apple, peeled (w/leucosyria)	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, sliced	11000090 11	Apple, sliced	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, sliced-babyfood	11000091 11	Apple, sliced-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, whole	11000100 11	Apple, whole	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, whole-babyfood	11000101 11	Apple, whole-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, whole	11000110 11	Apple, whole	1.0000000	1,000	1.00	1.00	1.00	1.00
Apple, whole-babyfood	11000111 11	Apple, whole-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Apricot	12000120 12	Apricot	1.0000000	1,000	1.00	1.00	1.00	1.00
Apricot-babyfood	12000121 12	Apricot-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Apricot, dried	12000130 12	Apricot, dried	1.0000000	1,000	1.00	1.00	1.00	1.00
Apricot, fruit	12000140 12	Apricot, fruit	1.0000000	1,000	1.00	1.00	1.00	1.00
Apricot, fruit-babyfood	12000141 12	Apricot, fruit-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Arrowroot, leafy	01000150 10D	Arrowroot, leafy	1.0000000	1,000	1.00	1.00	1.00	1.00
Arrowroot, leafy-babyfood	01000151 10D	Arrowroot, leafy-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Asparagus	05000160 5	Asparagus	1.0000000	1,000	1.00	1.00	1.00	1.00
Asparagus-babyfood	05000161 5	Asparagus-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Asparagus, sliced	05000170 5	Asparagus, sliced	1.0000000	1,000	1.00	1.00	1.00	1.00
Asparagus, sliced-babyfood	05000171 5	Asparagus, sliced-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Asparagus, whole	05000180 5	Asparagus, whole	1.0000000	1,000	1.00	1.00	1.00	1.00
Asparagus, whole-babyfood	05000181 5	Asparagus, whole-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Avocado	06000190 6	Avocado	1.0000000	1,000	1.00	1.00	1.00	1.00
Avocado-babyfood	06000191 6	Avocado-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Avocado, sliced	06000200 6	Avocado, sliced	1.0000000	1,000	1.00	1.00	1.00	1.00
Avocado, sliced-babyfood	06000201 6	Avocado, sliced-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00
Avocado, whole	06000210 6	Avocado, whole	1.0000000	1,000	1.00	1.00	1.00	1.00
Avocado, whole-babyfood	06000211 6	Avocado, whole-babyfood	1.0000000	1,000	1.00	1.00	1.00	1.00

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 37 of 46

Full comment: 40 CFR 180.443(a) - PDP monitoring					
95000240 C	Banana, dried	0.023000	3.900	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring					
95000241 C	Banana, dried-babyfood	0.023000	3.900	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring					
15000250 15	Barley, pearled barley	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
15000251 15	Barley, pearled barley-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
15000260 15	Barley, flour	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
15000261 15	Barley, flour-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
15000270 15	Barley, bran	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030300 6C	Bean, black, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06020310 6B	Bean, broad, succulent	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030320 6C	Bean, broad, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06020330 6B	Bean, cowpea, succulent	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030340 6C	Bean, cowpea, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030350 6C	Bean, great northern, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030360 6C	Bean, kidney, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06020370 6B	Bean, lima, succulent	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030380 6C	Bean, lima, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030390 6C	Bean, mung, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030400 6C	Bean, navy, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030410 6C	Bean, pink, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06030420 6C	Bean, pinto, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
06010430 6A	Bean, snap, succulent	1.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
06010431 6A	Bean, snap, succulent-babyfood	1.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000440 M	Beef, meat	0.100000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000441 M	Beef, meat-babyfood	0.100000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000450 M	Beef, meat, dried	0.100000	1.920	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000460 M	Beef, meat byproducts	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000461 M	Beef, meat byproducts-babyfood	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000470 M	Beef, fat	0.050000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000471 M	Beef, fat-babyfood	0.050000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000480 M	Beef, kidney	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000490 M	Beef, liver	1.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
21000491 M	Beef, liver-babyfood	1.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)					
01010500 1A3	Beet, garden, roots	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
01010501 1A3	Beet, garden, roots-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
02000510 2	Beet, garden, tops	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)					
01010520 1A	Beet, sugar	0.700000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(b)					
01010521 1A	Beet, sugar-babyfood	0.700000	1.000	1.000	40 CFR

Myclobutanil  
PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296508  
Page: 38 of 46

Full comment: 40 CFR 180.443(a)					
01010530 1A Beet, sugar, molasses	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(b)					
01010531 1A Beet, sugar, molasses-babyfood	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
11010550 13A Blackberry	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
11010560 13A Blackberry, juice	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
11010561 13A Blackberry, juice-babyfood	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
11010580 13A Boysenberry	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010610 5A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010611 5A Brussels-babyfood	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010620 5A Brussels, Chinese	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010630 5B Brussels sprouts	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
11000650 15 Broccoli	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
11000660 15 Broccoli, flour	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010670 1A Broccoli	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010690 5A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01020700 5B Brussels, Chinese, baby food	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010710 5A Brussels, Chinese, baby	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010720 5A Brussels, Chinese, baby	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010750 5A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010760 4B Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010770 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010781 1A Brussels-babyfood	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010790 1A Brussels, juice	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010800 5A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010820 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010821 1A Brussels-babyfood	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010830 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010840 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010850 4B Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010851 4B Brussels-babyfood	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010860 4B Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010870 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010880 5B Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010890 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010900 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010910 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010920 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010930 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010940 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010950 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010960 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010970 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010980 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					
01010990 1A Brussels	1,000,000	1.00E+06	1.00E+06	100	100
Full comment: 40 CFR 180.443(a)					

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 39 of 46

Full comment: 40 CFR 180.443(a)				
40000930 P Chicken, meat	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
40000931 P Chicken, meat-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
40000940 P Chicken, liver	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
40000950 P Chicken, meat byproducts	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
40000951 P Chicken, meat byproducts-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
40000960 P Chicken, fat	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
40000961 P Chicken, fat-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
40000970 P Chicken, skin	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
40000971 P Chicken, skin-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
06030980 6C Chickpea, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06030981 6C Chickpea, seed-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06030990 6C Chickpea, flour	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01011000 1AB Chicory, roots	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
02001010 2 Chicory, tops	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
09021020 9B Chinese waxgourd	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
04011040 4A Chrysanthemum, garland	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
05021170 5B Collards	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001200 15 Corn, field, flour	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001201 15 Corn, field, flour-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001210 15 Corn, field, meal	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001211 15 Corn, field, meal-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001220 15 Corn, field, bran	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001230 15 Corn, field, starch	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001231 15 Corn, field, starch-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001240 15 Corn, field, syrup	0.030000	1.500	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001241 15 Corn, field, syrup-babyfood	0.030000	1.500	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001250 15 Corn, field, oil	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001251 15 Corn, field, oil-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001260 15 Corn, pop	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001270 15 Corn, sweet	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15001271 15 Corn, sweet-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
95001280 0 Cottonseed, oil	0.020000	1.000	0.010	40 CFR
Full comment: 40 CFR 180.443(a)				
95001281 0 Cottonseed, oil-babyfood	0.020000	1.000	0.010	40 CFR
Full comment: 40 CFR 180.443(a)				
04011330 4A Cress, garden	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
04011340 4A Cress, upland	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
09021250 9B Cucumber	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
13021360 13B Currant	3.000000	1.000	1.000	40 CFR

Myclobutanil  
 PC Code: 128857

Human Exposure and Risk Assessment

DP Barcode: D296308  
 Page: 40 of 46

Full comment: 40 CFR 180.443(a) 13021370 13F. Chirant, onion	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 04021380 4A. Brandelion, leaves	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 01021390 1CF. Banneen, corn	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 02021400 2. Banneen, leaves	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 13021420 13A. Dewberry	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 70001450 F. Egg, whole	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 70001451 F. Egg, whole-babyfood	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 70001460 F. Egg, whole	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 70001461 F. Egg, whole (solidified)-babyfood	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 70001470 F. Egg, yolk	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 70001471 F. Egg, yolk-babyfood	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 08001480 8. Eggplant	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 04021500 4A. Endive	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 04021520 4B. Fernel, Florence	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 01021600 1CF. Finger	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 01021661 1CF. Finger-babyfood	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 01021670 1CF. Finger, sliced	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 01021680 1CF. Finger, sliced	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 03001690 M. Goat, meat	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 03001700 M. Goat, meat (hydrated)	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 23001710 M. Goat, fat	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 24001720 M. Goat, kidney	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 23001730 M. Goat, liver	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 03021740 11B. Go, netting	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 95001750 C. Grape	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 95001760 C. Grape, green	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 95001761 C. Grape, juice-babyfood	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 95001770 C. Grape, white	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 95001780 C. Grape, white	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 95001790 C. Grape, white and red	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 06021820 6C. Guay, green	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 06021821 6C. Guay, white-babyfood	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 06021870 6A. Guay, white-babyfood	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 05001900 C. Hay	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 05001900 B. Hay, hay	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 05001900 1A. Hay, hay	1.000000	1.00	100	100	100
Full comment: 40 CFR 180.443(a) 05001940 C. Hay	1.000000	1.00	100	100	100

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 41 of 46

Full comment: 40 CFR 180.443(d)				
05011960 5A Kohlrabi	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06032030 6C Lentil, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
04012040 4A Lettuce, head	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
04012050 4A Lettuce, leaf	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
13012080 13A Loganberry	2.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
27002220 D Milk, fat	0.006000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring				
27002221 D Milk, fat - baby food/infant for	0.006000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring				
27012230 D Milk, nonfat solids	0.006000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring				
27012231 D Milk, nonfat solids-baby food/in	0.006000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring				
27022240 D Milk, water	0.006000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring				
27022241 D Milk, water-babyfood/infant form	0.006000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring				
27032251 D Milk, sugar (lactose)-baby food/	0.006000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a) - PDP monitoring				
15002260 15 Millet, grain	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
05022250 5B Mustard greens	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
12002300 12 Nectarine	2.000000	1.000	0.250	40 CFR
Full comment: 40 CFR 180.443(a)				
15002310 15 Oat, bran	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15002320 15 Oat, flour	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15002321 15 Oat, flour-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15002330 15 Oat, groats/rolled oats	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15002331 15 Oat, groats/rolled oats-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
08002340 8 Oats	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
04012480 4A Parsley, leaves	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01012500 1AB Parsley, turnip rooted	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01012510 1AB Parsnip	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01012511 1AB Parsnip-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06022550 6B Pea, succulent	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06022551 6B Pea, succulent-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06032560 6C Pea, dry	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06032561 6C Pea, dry-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06012570 6A Pea, edible podded, succulent	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06032580 6C Pea, pigeon, seed	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
06022590 6B Pea, pigeon, succulent	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
12002600 12 Peach	2.000000	1.000	0.320	40 CFR
Full comment: 40 CFR 180.443(a)				
12002601 12 Peach-babyfood	2.000000	1.000	0.320	40 CFR
Full comment: 40 CFR 180.443(a)				
12002610 12 Peach, dried	2.000000	7.000	0.320	40 CFR
Full comment: 40 CFR 180.443(a)				
12002611 12 Peach, dried-babyfood	2.000000	7.000	0.320	40 CFR
Full comment: 40 CFR 180.443(a)				
12002620 12 Peach, juice	2.000000	1.000	0.320	40 CFR



Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 43 of 46

Full comment: 40 CFR 180.443(d)				
60003010 P Poultry, other, meat	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
60003020 P Poultry, other, liver	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
60003030 P Poultry, other, meat byproducts	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
60003040 P Poultry, other, fat	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
60003050 P Poultry, other, skin	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
09023080 9B Pumpkin	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
09023090 9B Pumpkin, seed	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
04013130 4A Radicchio	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01013140 1AB Radish, roots	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
02003150 2 Radish, tops	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01013160 1AB Radish, Oriental, roots	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
02003170 2 Radish, Oriental, tops	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
05023180 5B Rape greens	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
13013200 13A Raspberry	2.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
13013201 13A Raspberry-babyfood	2.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
13013210 13A Raspberry, juice	2.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
13013211 13A Raspberry, juice-babyfood	2.000000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
04023220 4B Rubarb	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003230 15 Rice, white	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003231 15 Rice, white-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003240 15 Rice, brown	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003241 15 Rice, brown-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003250 15 Rice, flour	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003251 15 Rice, flour-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003260 15 Rice, bran	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003261 15 Rice, bran-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01013270 1AB Rutabaga	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003280 15 Rye, grain	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15003290 15 Rye, flour	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01013310 1AB Salsify, roots	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
02003320 2 Salsify, tops	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
26003390 M Sheep, meat	0.100000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
26003391 M Sheep, meat-babyfood	0.100000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
26003400 M Sheep, meat byproducts	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
26003410 M Sheep, fat	0.050000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
26003411 M Sheep, fat-babyfood	0.050000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
26003420 M Sheep, kidney	0.200000	1.000	1.000	40 CFR

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: D296308  
Page: 45 of 46

---

Full comment: 40 CFR 180.443(d)				
15003811 15 Triticale, flour-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
50003820 P Turkey, meat	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003821 P Turkey, meat-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003830 P Turkey, liver	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003831 P Turkey, liver-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003840 P Turkey, meat byproducts	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003841 P Turkey, meat byproducts-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003850 P Turkey, fat	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003851 P Turkey, fat-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003860 P Turkey, skin	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
50003861 P Turkey, skin-babyfood	0.020000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
01033870 1CD Turmeric	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01013880 1AB Turnip, roots	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
05023890 5B Turnip, greens	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
09013990 9A Watermelon	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
09014000 9A Watermelon, juice	0.200000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(a)				
15004010 15 Wheat, grain	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15004011 15 Wheat, grain-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15004020 15 Wheat, flour	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15004021 15 Wheat, flour-babyfood	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15004030 15 Wheat, germ	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15004040 15 Wheat, bran	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
15004050 15 Wild rice	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01034060 1CD Yari, true	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				
01034070 1CD Yari bean	0.030000	1.000	1.000	40 CFR
Full comment: 40 CFR 180.443(d)				

Myclobutanil  
PC Code: 128857

## Human Exposure and Risk Assessment

DP Barcode: 11290805  
Page: 46 of 46

#### Attachment 4. Summary of Chronic Refined Dietary Exposure and Risk Estimates for Myclobutanil

U.S. Environmental Protection Agency  
DEEM-ECID Chronic analysis for MYCLOBUTANIL  
Residue file name: C:\Documents and Settings\Monomali\My Documents\Tables\Risk\dietary\Myclob\Myclob-1-1-pdp.R98

File name:  
11-14-98.rpt

Analysis Date 03-06-2004/16:54:11 Residue file dated: 10-06-2003/15:00:00  
Reference dose (RfD, Chronic) = .007 mg/kg bw/day  
COMMENT 1: Tolerance file to evaluate Section 18

Attachment 1: Table #1 -

##### Total exposure by population subgroup

Population Subgroup	Total Exposure	
	mg/kg body wt/day	Percent of RfD
U.S. Population (total)	0.002047	29.1
U.S. Population (spring season)	0.002027	29.0
U.S. Population (summer season)	0.002239	31.9
U.S. Population (autumn season)	0.001945	27.8
U.S. Population (winter season)	0.001977	28.3
Northeast region	0.002270	32.6
Midwest region	0.002093	30.0
Southern region	0.001879	26.9
Western region	0.002110	30.2
Hispanics	0.002255	32.4
Non-hispanic whites	0.002030	29.1
Non-hispanic blacks	0.002087	30.0
Non-hisp/non-white/non-black	0.002167	31.0
All infants (< 1 year)	0.003172	45.4
Nursing infants	0.003811	54.4
Non-nursing infants	0.002689	38.4
Children 1-6 yrs	0.005187	74.1
Children 7-12 yrs	0.002796	40.0
Females 13-19 (not preg or nursing)	0.001501	21.4
Females 20-100 (preg or nursing)	0.001646	23.4
Females 14-50 yrs	0.001626	23.2
Females 130 (preg and nursing)	0.001754	25.1
Females 130 (not preg)	0.001916	27.3
Males 13-19 yrs	0.001763	25.3
Males 20+ yrs	0.001580	22.6
Seniors 65+	0.001617	23.1
Children 1-4 yrs	0.006160	87.9
Children 5-6 yrs	0.004961	70.9
Children 7-12 yrs	0.002977	42.7
Youth 13-19 yrs	0.002077	29.7
Adults 20-49 yrs	0.001746	25.0
Adults 50 yrs	0.001698	24.1
Female 13-49 yrs	0.001717	24.5



13544

R105683

**Chemical:** Myclobutanil

**PC Code:** 128857

**HED File Code** 14000 Risk Reviews

**Memo Date:** 03/22/2004

**File ID:** DPD296308

**Accession Number:** 412-05-0093

**HED Records Reference Center**  
03/18/2005